

REMARKS

A. Objection to Claims

In the Office Action mailed on January 26, 2007, claim 13 was objected to for depending on a canceled claim. In view of the present amendment to claim 13 that has claim 13 depend from claim 12, the objection has been overcome and should be withdrawn.

B. 35 U.S.C. § 103

1. Hagl et al., Rehm et al. and Lennartsson

a. Claims 2, 4, 5, 7, 8, 16-21, 23, 24, 26 and 28

Claims 2, 4, 5, 7, 8, 16-21, 23, 24, 26 and 28 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al., Rehm et al. et al. and Lennartsson. Applicants traverse the rejection. In particular, the claims depend directly or indirectly on claim 12, which recites a method for serial data transmission that includes “always transmitting further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” The Examiner at page 5 of the Office Action has conceded that Hagl et al. does not disclose “always transmitting further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” The Examiner relies on Rehm et al. for overcoming the deficiencies of Hagl et al. In particular, the Examiner at page 5 of the Office Action asserts that Rehm et al.’s data accommodated in the intervals FZI and corresponding to processes R10-R13 is non-time critical data that immediately follows the time critical data of processes RZ1 and RZ2. As pointed out in Applicants’ Amendments of October 28, 2005 and May 23, 2006, Rehm et al. only describes the sectoring of processing time so that data associated with time critical processes is processed during periods RZ1, RZ2

and data associated with non-time critical processes is processed during alternating periods FZI.

It is noted that the Examiner at page 2 of the Office Action has relied on several passages of Rehm et al. as disclosing the recited “always transmitting further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” A review of those passages at column 2, lines 42-53 and column 3, lines 45-61 of Rehm et al. reveals there is no discussion of always transmitting the recited further data immediately following transmitting the up-to-date position data. While the passages mention non-time-critical computing processes, there is no mention of always transmitting further data, whose processing is not time-critical, immediately after transmitting up-to-date position data as recited in claim 22.

As pointed out in previous Amendments, Rehm et al. discloses the sectoring of processing time and fails to disclose always transmitting “further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data.” Lennartsson does not cure the deficiencies of Hagl et al. and Rehm et al. in that Lennartsson does not suggest altering Hagl et al. so that Hagl et al. always transmits non-time-critical data immediately after transmission of position data. Without such suggestion, the rejection is improper and should be withdrawn.

The rejections are improper for the additional reason that Hagl et al., Rehm et al. and Lennartsson fail to disclose transmitting several different position request commands, wherein the position request commands are assigned different processing priorities, as recited in claim 12 from which the claims depend. The Examiner at page 5 of the Office Action has conceded that Hagl et al. and Rehm et al. fail to disclose transmitting the recited position request commands.

Lennartsson does not cure the deficiencies of Hagl et al. and Rehm et al. Lennartsson only generally discloses that a master station of a communication bus can assign access priority to various message data structures. Nowhere does Lennartsson disclose that position request commands are assigned different processing priorities as recited in claim 12.

The rejections should be withdrawn for that additional reason that it is unclear how Hagl et al. is to be altered in view of Rehm et al. and/or Lennartsson in order to always transmit data that is not time-critical immediately following the transmission of up-to-date position data. Without clarity as to how the two references are to be combined, the rejection is improperly using an “obvious to try” standard which is improper. *Gillette Co. v. S.C. Johnson & Son Inc.*, 919 F.2d 720, 725, 16 USPQ2d 1923, 1928 (Fed. Cir. 1990).

The rejections are improper for the additional reason that Hagl et al., Rehm et al. and Lennartsson fail to disclose either 1) having a position request signal arrive during transmission of non-time critical data and interrupting the transmission of the non-time-critical data or 2) immediately transmitting a position data request command in the place of the non-time-critical data, wherein the up-to-date position data are immediately transmitted from the position measuring system to the processing unit as recited in claim 12. The Examiner has essentially conceded this at page 11 of the Office Action by relying on Kurten to cure the deficiencies of Hagl et al., Rehm et al. and Lennartsson.

The rejections of claims 24 and 26 are improper for the additional reason that neither Hagl et al., Rehm et al. nor Lennartsson suggests altering Hagl et al. to use a first position request command for position control that causes transmission of up-to-date position data to be given highest priority and a second position request command for digitizing a workpiece contour that

causes transmission of up-to-date position data to be given lower priority. The Examiner at page 5 of the Office Action has conceded that Hagl et al. does not disclose such position request commands. The Examiner at pages 3 and 5 of the Office Action has relied on Lennartsson as solving the deficiencies of Hagl et al. While Lennartsson does disclose transmitting messages with a unique priority it does not disclose nor suggest the particular position request commands recited in claim 24. Since there is no motivation in Lennartsson to alter Hagl et al. to use the claimed position request commands, the rejection should be withdrawn.

b. Claims 36 and 38-45

Claims 36 and 38-45 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al., Rehm et al. and Lennartsson. Applicants traverse the rejection. Claim 36 recites that related non-time critical data is transmitted “over several blocks, between which up-to date position data is transmitted.” The Office Action has not identified one reference that is being relied on for suggesting the recited transmission of non-time critical data. If the Office Action is relying on Rehm et al. for overcoming the deficiencies of Hagl et al., then the rejection is improper since Rehm et al. is silent whether up-to date position data is transmitted between several blocks of non-time critical data. As mentioned previously in Section A.1.a, FIG. 2 of Rehm et al. discloses when certain non-time-critical processes and time-critical processes are performed (Col. 3, l. 45 – Col. 4, l. 18). There is no mention in Rehm et al. when up-to date position data and various non-time critical data are transmitted in the manner recited in claim 36.

The rejection should be withdrawn for the additional reason that an improper “obvious to try” standard is being applied since it is unclear how Hagl et al. is to be altered in view of

Rehm et al. in order to transmit related non-time critical data over several blocks between which up-to date position data is transmitted.

c. Claims 47, 48 and 50-55

Claims 47, 48 and 50-55 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al. and Rehm et al. Claim 47 recites a system for serial data transmission wherein related non-time critical data is transmitted over several blocks, between which the up-to data position data is transmitted. Since the above language is similar to that of claim 36, the rejection should be withdrawn for reasons similar to those given above in Section A.1.c. The rejection is improper for the additional reason that the Office Action has failed to address the limitation at all by not identifying one reference that discloses the recited transmission.

2. Hagl et al., Rehm et al., Lennartsson and Kurten

Claims 12-14, 25 and 27 were rejected under 35 U.S.C. §103 as being obvious in view of Hagl et al., Rehm et al., Lennartsson and Kurten. Applicants traverse the rejection. In particular, independent claim 12 recites having a position request signal arrive during transmission of non-time critical data and interrupting the transmission of the non-time-critical data. Claim 12 further recites immediately transmitting a position data request command in the place of the non-time-critical data, wherein the up-to-date position data are immediately transmitted from the position measuring system to the processing unit. The Examiner at page 3 of the Office Action points to several passages in Rehm et al. and Hagl et al. as disclosing the recited transmitting and interrupting. A review of the passages shows that there is no mention of the recited transmitting and interrupting. It should be noted that the Examiner at page 11 of the Office Action concedes that Hagl et al., Rehm et al. and Lennartsson do not disclose the recited interrupting. Since Kurten

does not suggest altering Hagl et al. to perform the recited transmitting and interrupting, the rejection is improper and should be withdrawn.

As mentioned above in Section A.1.a, Rehm et al. and Lennartsson both do not suggest altering Hagl et al. so as to always transmit “further data, whose processing is not time-critical, immediately following said transmitting said up-to-date position data” as recited in claim 12. Kurten does not cure the deficiencies of Hagl et al., Rehm et al. and Lennartsson in that Kurten does not suggest altering Hagl et al. so that Hagl et al. always transmits non-time-critical data immediately after transmission of up-to-date position data. Without such suggestion, the rejection is improper and should be withdrawn.

The rejection is improper for the additional reason that not one of Kurten, Rehm et al. or Lennartsson suggests altering Hagl et al. to immediately transmit after interrupting transmission of non-time-critical data a position data request command to the position measuring system in the place of the non-time-critical data, “whereupon said up-to-date position data are immediately transmitted from said position measuring system to said processing unit” as recited in claim 12. This was explained in Applicants’ Amendments filed on October 28, 2005 and May 23, 2006, the entire contents of each of which are incorporated herein by reference. Since there is no suggestion in any of Hagl et al., Rehm et al., Lennartsson or Kurten to provide the claimed transmitting to Hagl et al., the rejection is improper and should be withdrawn.

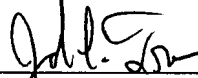
Claim 14 is patentable for the additional reason that not one of Kurten, Lennartsson or Rehm et al. suggests altering Hagl et al. to transmit after interrupting transmission of non-time-critical data up-to-date position data in the place of the non-time-critical data as explained in Applicants’ Amendments filed on October 28, 2005 and May 26, 2006, the entire contents of each of which are incorporated herein by reference. Since there is no suggestion in any of Hagl et al.,

Rehm et al., Lennartsson or Kurten to provide the claimed transmitting to Hagl et al., the rejection is improper and should be withdrawn.

CONCLUSION

In view of the arguments above, Applicants respectfully submit that all of the pending claims 2, 4, 5, 7, 8, 12-14, 16-21, 23-28, 36, 38-45, 47, 48 and 50-55 are in condition for allowance and seek an early allowance thereof. If for any reason, the Examiner is unable to allow the application in the next Office Action and believes that an interview would be helpful to resolve any remaining issues, he is respectfully requested to contact the undersigned attorneys at (312) 321-4200.

Respectfully submitted,



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